

**ALTERNATIVES DEVELOPMENT GROUP (ADG)
SOUTHWEST FLORIDA ENVIRONMENTAL IMPACT STATEMENT
MEETING #4, June 4 - 5, 1998**

MEETING NOTES: FINAL

The notes provided below document the main points and meeting progress that were offered during the meeting on June 4 through June 5. The notes highlight and summarize the key issues that were discussed at the ADG meeting. The following section provides an overall summary of the meeting, and the remaining sections summarize each of the agenda items as they occurred in the meeting. Selected attachments are provided in this document. Any comments on accuracy of these notes are welcome and will be reflected in a subsequent version of this meeting report. Note that copies of this document were provided electronically either through e-mail, facsimile, <http://www.saj.usace.army.mil/permit/projects.htm>, or <ftp://ftp.saj.usace.army.mil/pub/bbarron>. Attachments are included in the electronic version when reasonably possible. Otherwise, the full version with all attachments will be distributed at the next ADG meeting.

Meeting Overview

The Alternatives Development Group (ADG) met on June 4 through June 5, 1998, at the Bonita Springs Community Hall. All ADG members were represented at the meeting. The roster of attendees is presented in Attachment A. The two primary goals of this meeting were to (1) finish the identification and definition of evaluation factors and (2) develop alternatives for the Estero Bay watershed portion of the study area otherwise known as the "hub."

The meeting began the morning of June 4 with administrative announcements followed by the introduction of members/alternates, observers, and the facilitation team. Dale Brown and Tim Feather, lead facilitator and project manager for Planning and Management Consultants, Ltd., respectively, presented the agenda for the fourth meeting.

The ADG refined the evaluation factors that addressed the twelve issues identified at the first meeting. In this effort, factors were identified, defined, measures developed, and data and information sources identified. See Attachment B. Two new issues were brought to the ADG at the fourth meeting: (1) hurricane preparedness and (2) air quality. These issues were subsumed by evaluation factor specialty groups to be addressed. The evaluation factors will continue to be refined at future meetings.

The facilitation team proposed that the study area be divided into four smaller areas for the ease of development and evaluation of alternatives. Attachments C and D show the study area and proposed division. The ADG developed initial alternatives for the Estero Bay watershed

(hub) portion of the study area. A map of the hub is presented in Attachment E. The ADG used the map of the hub to graphically depict their alternatives. These alternatives will be evaluated using the evaluation factors at the fifth meeting.

The ADG identified data and information sources that will aid them in refining evaluation factors as well as evaluating alternatives for the hub. Several members of the ADG volunteered to present these data and information at the fifth meeting.

Administrative Activities

Dale Brown and Tim Feather opened the meeting with administrative activities. These activities included (1) administrative announcements, (2) overview of the third meeting, (3) agenda, and (4) review of Lake Belt Report.

Administrative Announcements

The fourth ADG meeting was brought to order on Thursday, June 4, 1998 at 9:10 a.m. Mr. Brown addressed administrative issues regarding facilities, lunch, and other logistical items. The group was reminded to check the sign-in sheet for attendance and correctness. Mr. Brown began the meeting by requesting introductions of members, alternates, observers, and the facilitation team members.

At the request of the ADG, the Charge, ADG meeting process, and identified ADG issues (twelve) were placed on large poster board for the benefit of the group. This was requested to help keep the group on task. In addition, the composite map (commons map) developed during the third meeting was presented to the group.

Third Meeting Overview

Tim Feather presented an overview of the third ADG meeting using presentation materials provided in Attachment D of the notes from the third meeting (which were handed out to the group). Mr. Feather presented the (1) activities, (2) accomplishments, and (3) next steps regarding the third meeting.

Draft meeting notes for the third meeting were distributed to the group. Final notes for the first and second meetings were also provided to the group. Comments on the draft notes for the third meeting were entertained by the facilitation team. There were no comments concerning the text of the notes. However, there was discussion on the Commons Map presented in Attachment C of the third meeting notes. It was stated that the original felt map developed by the

ADG should be dated appropriately and titled. Clear indication of how and why the map was created should be noted. It was also noted that this map still represents some inaccuracies of commonality by the group. These would be incorporated into the map and notes to reflect this sentiment.

The method of distribution of the meeting notes will be the use of the Jacksonville District's ftp site (<ftp://ftp.saj.usace.army.mil/pub/bbarron>).

Agenda

The agenda for the fourth meeting was presented by Tim Feather. The ADG would first continue the development of evaluation factors started at the second meeting. This would require the ADG to break into factor specialty groups identified at the third meeting. The group would begin identifying alternatives for the Estero Bay watershed (hub) portion of the study area. Lastly, the group would be assigned the task of identify and bring pertinent materials to the ADG to aid in the development of alternatives and the evaluation of those alternatives with the identified factors.

Lake Belt Report

Mr. Feather provided an opportunity for comments and questions by the ADG regarding the efforts completed and documented in the Lake Belt Report. The efforts completed for the Lake Belt were similar to those to be accomplished by the ADG; (1) identification of alternatives, (2) identification of evaluation factors, and (3) evaluation of alternatives utilizing the factors.

John Hall, representative of the Corps of Engineers, stated that the preferred alternative described in the Lake Belt Report was incorporated into the draft environmental impact statement (EIS). The preferred alternative of the Lake Belt group presented in the Lake Belt Report has been refined by the involved parties to address areas of further concern. The draft EIS will soon be available for review. The difference between the Lake Belt study and that for Lee and Collier counties, is that the ADG represents more diverse interests.

Evaluation Factor Refinement

Dale Brown and Tim Feather led the ADG in the refinement of evaluation factors initially identified by factor specialty groups at the third ADG meeting. The notes from the third meeting identify the issues to be addressed by each specialty group. The facilitation team provided the group with packets of information sheets that would aid the factor specialty groups focus on four elements of evaluation factor development: (1) description, (2) types of measurement, (3) data

sources, and (4) references. The factor specialty groups took a preliminary review of evaluation factors at the third meeting and refined the evaluation factors at the fourth meeting.

Before the refinement of evaluate factors, two additional issues were identified by ADG members. It was suggested that the ADG also address air quality and the need for hurricane shelters. It was agreed by the ADG that the appropriate factor specialty group would review these two issues to determine (1) whether the issue should be addressed by the ADG and (2) how would each be addressed as a factor.

The ADG broke into factor specialty groups that were identified at the third meeting. Each specialty group deliberated for several hours to refine their evaluation factors and reported their results to the ADG. The information packets were utilized to aid the specialty groups in organizing their results for presentation to the ADG. The results of the factor specialty groups by issue (12) are presented in Attachment B. Copies of the information presented in Attachment B were provided to the members of the ADG and they were to review the evaluation factors prior to the fifth meeting. Highlights of the discussion surrounding the specialty group presentation follow:

- The discussion of regulatory efficiency and effectiveness as a factor alluded to the continued need for public input in the regulatory process. A member of the ADG asked whether or not making the regulatory process more efficient (i.e., general permits) was legal. As an option to pressing the legal issue, the member wanted to be sure that there was an opportunity to identify when there is not consensus on a factor as it is applied to evaluate alternatives. The group agreed to go through the process and let issues like this be brought out in ADG discussions.
- Members discussed the definition of cumulative and secondary impacts. The factor specialty group used the Council on Environmental Quality (CEQ) definitions. There was some discussion on the distinction between primary and secondary impacts. One member stated that the ADG should look at financial cumulative impacts. There are models that exist to look at these impacts (i.e., full cost accounting). It was suggested that the factor specialty group addressing economic sustainability should utilize the financial models. One member gave an example of increased driving time due to population growth. The factor specialty group that addressed the cumulative and secondary impacts factors agreed that hurricane preparedness will be addressed by the ADG.
- Public lands may be impacted by adjacent land uses that require more expensive natural resource management techniques. Also, it was mentioned by the group that not all public agencies have management plans for the lands. Some have plans but don't follow them, whereas others are not adequately funded.
- Much discussion occurred concerning property rights. It was stated by a member that the factor specialty group must look at the impact of infringement by adjacent property owners. It was also stated by a member that property ownership does

not equate to a profit. Members stated that public property rights must be addressed by this specialty group. Others thought the factor specialty group addressing the issue of public land management and use should address the issue of public property rights. Dale Brown reiterated that this is an iterative process and that one of the groups will address public property rights.

- It was suggested by the factor specialty group reviewing local land use policy that the source to address alternatives is the current county comprehensive plans. Members suggested that this is not a good comparison due to the ever changing nature of the plans. The comprehensive plans themselves are alternatives that must be evaluated using the identified factors.

Procedural Item Addressed

The facilitation team posed a question to the group regarding the use of alternates at the ADG meetings. It was agreed that decisions are made by either the members or respective alternates of the ADG. Currently, that membership is thirty-three. The question posed was what role may the alternates play in breakout groups. It was stated by several members that all alternates and the general public should be able to participate in breakout group discussions. Others suggested that smaller groups work more efficiently. In addition, it was discussed whether alternates should participate in the same group as their respective ADG member. The ADG agreed to allow alternates to participate in the breakout group of their choice. The public may also participate in the ADG breakout groups. However, it was agreed that the group's leader maintain control of the group. If participation becomes a problem, then the ADG will address the issue again.

Alternatives Development

Mr. Brown and Mr. Feather introduce the task of alternatives development. The study area has, for the sake of alternatives development, been divided into four subareas. The base map for the study is presented in Attachment C. The proposed division of the study area is presented in Attachment D. The group would first develop alternatives for Section B (hub) which includes the Estero Bay watershed. The map of the hub is presented in Attachment E. First, individual members of the ADG developed alternatives for the hub. This activity was designed to add detail to alternatives for the study area that could not be afforded in the broad-brush activity from the previous meeting that created the "commons" map. This activity was an opportunity for the breakout groups to develop one or many alternatives for the designated portion of the study area.

Several members stated that they needed specific maps and data to accurately portray the alternatives. Also, several members suggested that an alternative on a map should require

narrative to better explain the map. Several members also stated that the Estero Agency of Bay Management (ABM) was coming out with a report that will aid in the development of alternatives for this area. John Hall stated to the group that the individuals assembled in ADG are the most knowledgeable of the study area and thus should be able to develop alternatives given that knowledge and understanding of the study area. The group can check these alternatives with data and information that members bring to the ADG. Members have been encouraged to bring data, information, and maps to aid this process.

The ADG broke into subgroups to develop alternatives for the hub area. Each ADG member took time to identify important features of alternatives on individual working maps. From these individual maps, each subgroup initiated development of alternatives for the hub. This activity was not intended to result in a single map (i.e., commons map) but to graphically and narratively describe alternatives for the ADG to consider. The maps themselves were not made a part of the record, but will be used to further develop alternatives in future meetings. It is also intended to digitize draft products so that data and overlays can be utilized to evaluate alternatives. Important discussions concerning the alternatives during the report back are provided below.

- One group presented a base map of the hub. The group also provided an overlay delineating areas for potential development. The group presented many alternatives within a single map using the development overlay.
- It was suggested that the group review historical flow patterns in relation to current flow patterns. This would allow the ADG to address the issue of restoration/retrofit of presently disfunctional systems. Historically, the value of isolated wetlands has been disregarded. The group should strive to connect the isolated wetlands and maintain flowways. Agricultural interests build dikes and connect isolated wetlands but the canals are not wide enough. However, agricultural lands are more important for wildlife values than rural residential areas. For example, large low intensive agriculture is better for panthers than corridors. Orange groves and other agricultural lands should be reviewed for their ecological value before they are converted to either different agricultural purposes or development. There were still areas of disagreement in the shore areas of Estero Bay.
- One group identified three general areas: (1) coastal wetlands, (2) urban, and (3) undeveloped inland areas. Among these three areas are zones of transition in which the expertise of the ADG can address. As alternatives are developed, it might be that the alternatives are not significantly different than the current county comprehensive plans. A lot of discussion concerning water tables took place. There was concern that development was interfering with potable artesian wells by drawing down the water table. Many irrigation wells (artesian) have been plugged in recent years.

- Generally, graphical depictions of alternatives presented areas of commonality and the alternatives centered around areas of either disagreement or uncertainty. For further clarification, the group agreed to bring necessary data and information regarding the hub allowing the ADG to make more informed decisions.

Hub: Data and Information Presentations

Dale Brown asked the group to identify information and data needed to finish development of both evaluation factors and alternatives for the hub. Tim Feather stated that the evaluation factors still would require some additional refinement. A number of ADG members volunteered to bring the following requested data and information.

- current and historic flow maps (Chip Merriam and Kris Thoemke)
- future flow maps (Chip Merriam)
- hydrology information (Chip Merriam)
- Estero Agency of Bay Management (ABM) map and report (Wayne Daltry and Fran Stallings)
- county land use and preserve maps (Paul O'Connor and Bill Mulhere)
- Lee County wetlands map (Paul O'Connor)
- hydric soils map and historic wetland inventory data bases (i.e., 1954 USFG) (Gary Beardsley)
- GAP and panther priority 1 and 2 maps (Brad Hartman)
- map of public and targeted lands (Tim Durham)
- hurricane preparedness (Wayne Daltry)

These data and information will be presented at the fifth ADG meeting.

Media

There was some discussion by the ADG concerning media coverage. Several members questioned the correctness of an article printed in a local newspaper the week of the fourth meeting. The title of the article was "All Talk No Action." Many of the ADG members voiced their disappointment with the article's negative spin. This discussion led to the question of whether or not the ADG should supply the media with press releases. One member stated from experience that damage control with press releases never works. Others suggested a press conference. Several indicated that it was too early for the ADG to address the media. The ADG agreed to address this issue at the next meeting.

Meeting Four Summary

Mr. Feather proposed a format of the summary presentation to the ADG similar to that of the previous meetings focused around the following topics.

- Activities (who, what, where, and why)
- Accomplishments
- Next steps
- Next meeting information

Mr. Feather offered the accomplishment topics of (1) evaluation factors refined, (2) first cut alternatives for the hub developed, and (3) data and information identified. The summary presentation is provided in Attachment F.

Next Meeting

The fifth meeting will be held at the The Conservancy in Naples on June 18 and 19, 1998. A map of the meeting location was distributed to the ADG. Topics of the meeting will be data and information presentations, evaluation factor refinement, and evaluation of the alternatives developed for the hub.

ATTACHMENT A

ALTERNATIVES DEVELOPMENT GROUP MEETING #4 ATTENDEES

LIST OF ATTENDEES
ALTERNATIVES DEVELOPMENT GROUP
MEETING #4, JUNE 4-JUNE 5, 1998

Members Represented:

Robert S. Baker
Council of Civic Associations

Rick Barber
Chief Executive Officer
Agnoli, Barber & Brundage, Inc.

Tom Beck
Department of Community Affairs

John Cassani
Lee County Hyacinth Control District

Wayne Daltry and David Burr (alternate)
Executive Director
SW FL Regional Planning Council

Claudia Davenport
Big Cypress Basin Board

David Douglas
David Douglas Assoc., N Ft. Myers Chamber of Commerce

Kim Dryden
U.S. Fish and Wildlife Service

Tim Durham
Wilson, Miller, Barton & Peek, Inc.

Clara Anne Graham-Elliott and Gary Lee Beardsley (alternate)
League of Women Voters of Lee County

William Jolly (alternate for John Folks)
Department of Agriculture and Consumer Services

Edward Griffith and Terrance Dolan (alternate)
Director of Planning
WCI Communities

David Guggenheim
The Conservancy of Southwest FL

Bill Hammond
South Florida Water Management District

Bradley J. Hartman and Jim Beever (alternate)
Director, Office of Environmental Services
Florida Game and Fresh Water Fish Commission

Peggie Highsmith and Jon Inglehart (alternate)
Department of Environmental Protection

Ronald Inge and Tracy Hayden (alternate)
Harper Bros., Inc.

Wallace Kain and Rob Loflin (alternate)
Mayor
City of Sanibel

Earl Kegg
Collier County Representative

Tim Durham (alternate for Richard Klaas)
Florida Real Estate Consultants

Bonnie Kranzer
Governor's Commission for Sustainable South Florida

Terry Rice (alternate for Al Lucas)
U.S. Environmental Protection Agency

Chip Merriam
Director, Fort Myers Service Center
South Florida Water Management District

Neale Montgomery and Katherine English (alternate)
Paves, Garner, Haverfield, Dalton, Harrison & Jensen

Bob Mulhere
Director, Collier County Planning

Paul O'Connor
Planning Division Director
Lee County

Robert H. Roth, P.E. and Mark Morton (alternate)
Barron Collier Partnership/Silver Strand Division

Fran Stallings

Mark P. Strain
Gulf Bay Communities, Inc.

Kris Thoenke
Director, Everglades Project
National Wildlife Federation

Matthew D. Uhle and Mike Roeder (alternate)
Economic Dev. Coalition of Lee Co.

Whit Ward and Michael Reitmann (alternate)
Collier Building Industry Association, Inc.

John R. Hall
Department of the Army, Jacksonville District Corps of Engineers, Regulatory Division

Observers:

Tim Jones
Lee County

Gary Maier
FDEP

Michael Simonik
TCI

W.T. Olds, Jr.
U.S. Fish and Wildlife Services

Peter Georges
Leadership Council

Cullum Hasty
(alternate for Fran Stallings)

Andrea Stetson
News-Press

Jeff Rhodes
SAIC/EPA

Steve Sullivan
COE Fort Myers

William Horner
Lee County Port Authority

Brian Bellman
Marco Island Resident

Facilitation Team:

Timothy Feather
Program Manager
Planning and Management Consultants, Ltd.

Dale Brown
Lead Facilitator
Planning and Management Consultants, Ltd.

Michael Beezhold
Meeting Recorder
Planning and Management Consultants, Ltd.

ATTACHMENT B

EVALUATION FACTORS MEETING No. 4

FACTOR SPECIALITY GROUP

Property Rights

Members:

Bob Roth	Mark Morton (Alternate - Bob Roth)
Mike Roeder/Matt Uhle	Earl Kegg
Paul O'Connor	Whit Ward
Gary Maier	Mark Strain
Tom Beck	Bob Mulhere
Michael Reitmann	Kate English

Description:

The right to use your property as you choose without harming others, subject to:

- ☞ Applicable law and regulation
 - Local government land plan
 - State and federal permitting regulations
- ☞ Timely compensation for value lost due to regulatory change
- ☞ Timely compensation for taking

Types of Measurement:

Impacts on:

- ☞ Fair market value
- ☞ Reasonable investment expectations
- ☞ Reasonable expectations for use of land
- ☞ Vested rights

Data Sources:

- ☞ Property appraisers records/tax records
- ☞ Independent appraisals
- ☞ Current laws regarding level of restriction necessary for taking
- ☞ Local comp plan/LDC

References:

- ☞ State and federal constitutions
- ☞ Case law
- ☞ Federal and state statutes
- ☞ Urban Land Institute, The Bar Association, National and Florida Home Builder Association and other relevant information from related associations

How to Differentiate Between Alternatives:

Allows ranking of alternatives: allows ranking of alternatives impacts on property rights.

FACTOR SPECIALITY GROUP

Ecosystem Function, Wildlife Habitat, and Listed Species

Members:

John Cassani	Kris Thoenke
Kim Dryden	Brad Hartman
David Burr	Fran Stallings

Description:

Issues that address upland, wetland, and aquatic habitat changes and fragmentation that affect listed species and ecosystem functions and the maintenance of ecological integrity and biodiversity.

Types of Measurement:

The degree to which an alternative:

- I. ...affects various listed species habitat planning objectives.
 - A. GFC SHCAs (Strategic Habitat Conservation Areas)
 - B. FWS Type 1 & 2 Panther Habitat
 - C. RPC natural Resource goals, objectives
 - D. FWS Recovery Plans
- II. Affects occurrences of listed species
 - A. Eagle nest
 - B. Rookeries
- III. ...results in a loss of native terrestrial, wetland, aquatic plant communities
 - A. ...affects all native plant communities
 - B. ...affects fragmentation and connectivity of plant and animal habitats
 - C. Results in loss/modification of rare and unique plant communities
 - D. Loss of seasonal wetlands
- IV. ...affects the integrity of flowways (rivers, sloughs, strands)

Data Sources:

Partial List

- Florida Natural Areas Inventory (FNAI)
- GFC WILDOBS
- Breeding Bird Atlas
- GFC gaps land cover/habitat
- DEP manatee GIS

References:

Partial List

- EPA - Wetlands of Importance to Wildlife
- GFC & FWS - 5 panther pubs
- GFC Darrell Land Bear Study
- FWS Recovery plans
- FCREPA Series - (Florida Committee on Rare and Endangered Plants and Animals)

FACTOR SPECIALITY GROUP

Regulatory Efficiency and Effectiveness

Members:

Ron Inge	John Hall
Clara Anne Graham-Elliott	Bob Barron
Tim Durham	Ed Griffith
David Guggenheim	

Description:

Efforts to add certainty, consistency, clarity and celerity to the permitting process while improving its integrity and effectiveness.

Types of Measurement:

- ☞ Permit review time
- ☞ Pre-identified impact/mitigation areas
- ☞ FWS/GFC general concerns addressed

Data Sources:

Public lands, targeted lands, etc. maps, private conservation lands

Differentiate: Use relative value between alternatives and acreage of pre-identified impact/mitigation areas.

References:

FACTOR SPECIALITY GROUP

Local Land Use Policy

Members:

Bob Roth	Earl Kegg
Mike Roeder (alternate Matt Uhle)	Whit Ward
Paul O'Connor	Mark Strain
Gary Maier	Bob Mulhere
Tom Beck	Kate English
Mark Morton (alternate Bob Roth)	

Description:

Recognize the local land use plans and regulations and evaluate each alternative's consistency with these plans and regulations.

Types of Measurement:

- ☞ Conflicts between each alternative and local government land use plans and regulations
 - Number of conflicts
 - Significance of conflicts
- ☞ If consistent with plans and regulations, feasibility of implementing alternative through general permit process
- ☞ Hurricane Preparedness
 - Evacuation routes
 - Shelter availability

Data Sources:

- ☞ Local land use plan and supporting data and analysis
- ☞ Supporting maps and data from jurisdictional agencies
- ☞ Regional and local emergency management plans

How to Differentiate Between Alternatives:

- ☞ By evaluating degree of consistency with local comprehensive plans

FACTOR SPECIALITY GROUP

Cumulative/Secondary Impacts

Members:

Brad Hartman (Jim Beever)
Wayne Daltry (Dave Burr)
John Cassani

Fran Stallings (Colum Hasty)
Kim Dryden (Tom Olds)
Kris Thoenke (Grady McCallie)

Description:

Cumulative - the impact on the environment results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

Secondary - caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.

Types of Measurement:

1. Outcome of models of cumulative impacts
 - ☞ Models that project
 - infant mortality
 - road needs
 - air pollution loading
 - water pollution loading
 - crime rates
 - hurricane vulnerability
2. EPA Index of Watershed Indicators
3. Rapid assessment procedures hydrogeomorphic method
 - ☞ Models for wetlands only
4. SPR - ?

Data Sources:

References:

Several Federal guidance protocols

FACTOR SPECIALITY GROUP

Avoidance of Wetland Impacts

Members:

Ron Inge	John Hall
Clara Anne Graham-Elliott	Bob Barron
Tim Durham	Ed Griffith
David Guggenheim	

Description:

Alternative's degree of avoidance of wetland impacts

Types of Measurement:

- ☞ # acres of wetlands impacted
- ☞ Wetland functions impacted (indices) [GIS, wrap layers]

Issues Other Groups Should be Evaluating:

- ☞ Degree of fragmentation/isolation promotion of connectivity
- ☞ Offsite impacts (water flow, water quality)
- ☞ Promotion of infill vs. sprawl (# acres within urban boundary, 13 indicators of sprawl)

Data Sources:

Dames and Moore Land Use Map (CD)
NWI Map

References:

FACTOR SPECIALITY GROUP

Water Management

Members:

Chip Merriam	Bonnie Kranzer
Bill Jolly	Terry Rice
David Douglas	Jon Iglehart for Peggie Highsmith
Ros Loflin	Bob Baker
Claudia Davenport	Jeff Rhodes (alternate for T. Rice)
Rick Barber	

Description:

To provide adequate water supply for human consumption, agricultural, commercial, and recreational uses as well as natural resource demands and to balance these with the need to provide flood protection

Types of Measurement:

- ☞ Infrastructure existence (stormwater utility)
- ☞ Occurrence of home damage during varying storm events
- ☞ All homes construction will be equal to or greater than 100 year storm event (finish floor)
- ☞ Level of flooding depth and duration
- ☞ Historical flow patterns (timing, direction, quantity, quality and duration)
- ☞ Adequate amount of water storage
 - Balancing demands of consumption with natural system hydroperiod
- ☞ Groundwater data modeling
 - Establishing floors and ceiling levels

Data Sources:

Historic water levels and flows (data)
Rainfall data
Models and studies
Field data/monitoring
FEMA maps
TOPO maps
Wetland maps
Biological indicators
Aerial and satellite references

References:

Permits
SWFRPC, DRI Reports
Minutes from meeting #2

FACTOR SPECIALITY GROUP

Water Quality

Members:

Wally Kain	Dave Douglas
Ned Dewhirst	Claudia Davenport
Karen Johnson	Jeff Rhodes
Bill Jolly	Terry Rice
Bob Baker	Bonnie Kranzer

Description:

How to maintain the quality of all waters of the region (surface and groundwater).

Types of Measurement:

- ☞ Establish standards (point and nonpoint)
 - establish PLRGS
- ☞ Determine aquatic community historical and present on impacts associated with fishing, recreation, shellfish and grass beds
- ☞ Create BMP (urban and ag)
 - Take into account old permitted and unpermitted constructed projects with new requirements. What is the comparable % coverage of those sites without any WQ
- ☞ Natural/passive nonstructural methods
- ☞ Health effects
 - stress of animal, plant communities
- ☞ Need more science

Data Sources:

CHNEP - RPC
NOAA
USGS
Shellfish data
Estero Bay Marine Lab
PLRG's other systems
Biological indicators
Anecdotal records

References:

See meeting II minutes

FACTOR SPECIALITY GROUP

Economic Sustainability

Members:

Bob Roth	Earl Kegg
Mike Roeder (Alternate for Matt Uhle)	Whit Ward
Paul O'Connor	Mark Strain
Gary Maier	Bob Mulhere
Tom Beck	Kate English
Mark Morton (Alternate for Bob Roth)	

Description:

Protection, enhancement, and expansion of the long term economic viability of the region, including: agricultural, commercial, construction, environmental, fisheries, industrial, residential, recreational and tourism elements.

Types of Measurement:

- ☞ Perform economic impact analysis for each alternative on each of the elements stated in the description.
- ☞ Evaluate each alternatives' consistency with the economic development plan.

Data Sources & References:

- ☞ Economic impact studies performed by local industries.
- ☞ Local land use plans
- ☞ Economic development committee studies
- ☞ Studies and analyses from applicable governmental agencies

How to Differentiate Between Alternatives:

Rank the alternatives based on how well each protects, enhances and expands the long term economic viability of the region.

FACTOR SPECIALITY GROUP

Mitigation

Members:

Ron Inge	John Hall
Clara Anne Graham-Elliott	Bob Barron
Tim Durham	Ed Griffith
David Guggenheim	

Description:

Compensation for unavoidable wetland impacts

Types of Measurement:

- ☞ Total acres provided
- ☞ Total wetland-function acres provided

Issues Other Groups Should be Evaluating

- ☞ Mitigation connectivity
- ☞ US fragmentation

Data Sources:

Maps of mitigation
Opportunity areas

References:

FACTOR SPECIALITY GROUP

Restoration/Retrofit

Members:

Wally Kain	Claudia Davenport
Dave Douglas	Ned Dewhirst
Karen Johnson	Jeff Rhodes
Terry Rice	Bob Baker
Bonnie Kranzer	Bill Jolly

Description:

To recreate or mimic natural and urban functions related to water management, water quality and ecological systems, and to provide economic sustainability and quality of life...by upgrading existing infrastructure to current standards. Recognize the benefit of a larger (than permit) vision and invest in a regional more "natural system".

Types of Measurement:

- 🌀 Flowways and outfalls create a maintained...decrease in depth or duration of flooding events. Natural function maintained in natural systems.
- 🌀 Ecotoc control: % and numbers of acres treated and restored.
- 🌀 % residents/Ag utilizing regional vs. self supplied infrastructure
- 🌀 % ag using bmps
- 🌀 Index of regional functionality W.S., W.Q.,
- 🌀 Biodiversity index of flora and fauna
- 🌀 Enhanced quality of life

Data Sources:

All the above before now and after and exotic rest plant council
Agency data and records
Comp plans...storm water plans
Capital improvement element

References:

IFAS?
ABM - land procurement map
2020
FGFWFL closing the gaps
DEP operation reports for water facilities
Woke WQ and WM stuff

FACTOR SPECIALITY GROUP

Public Lands Management/Use

Members:

Kim Dryden	Fran Stallings
Tom Olds	Dave Burr
Jim Beever	Kris Thoenke
John Cassani	

Description:

The management and use of public lands.

Types of Measurement:

What are we measuring?

- 1) Compatibility with land management plan
- 2) Condition (degrades/improves) of resources on public lands
- 3) Funding

What are tools to measure?

- 1) GIS
- 2) Aerial photography
- 3) Ground truthing
- 4) Monitoring reports
- 5) Scientific literature

Data Sources:

GIS - SFWMD and GFC (GAPs)

Land Management Plans

Local - Six Mile Cypress Slough, Hickey Creek, Lakes Park State - Collier-Seminole S.P., Fakahatchee Strand S.P., Picayune S.P., Ocalaocoochee CARL, CREW, Koreshan S.P., Lover's Key S.P., Wiggins Pass S.P., Estero/Rook Bay Aquatic Preserves.

Private - Audubon-Corkscrew SW, Land Trust Sanctuary, The Collier Conservancy Water Mgmt. Plans - Big Cypress Watershed Study, Lee Watershed Plan, Lower West Coast Water Supply Plan, Recovery Plans - FWS

References:

GFC's P-2000 Report

FNAI Reports - All CARL projects in study area

FNAI Reports - All CARL projects in study area

ATTACHMENT C

BASE MAP MEETING No. 4

ATTACHMENT D

PROSPECTIVE MAP MEETING No. 4

ATTACHMENT E

HUB MAP MEETING No. 4

ATTACHMENT F

SUMMARY PRESENTATION MEETING No. 4